Waves

- Wave Speed = Frequency x Wavelength
  - $v = f\lambda$
- Time Period = 1 / Frequency
  - $T = \frac{1}{f}$
- Frequency (f) = 1 / Period
  - $f = \frac{1}{T}$
  - Audible frequencies 20Hz to 20 000Hz

- Refractive Index = Speed of light in vacuum / Speed of light in the medium
  - $n = \frac{c}{v}$
  - $n = \frac{\sin(i)}{\sin(r)}$
- Critical angle C
  - $n = \frac{1}{\sin(C)}$
- Speed of light c = $3.0 \times 10^8\ m/s$ in vacuum and proximately the same in air
- Speed of sound in air 330 ~ 350 m/s